

LB-010-Triple layer bearing with PTFE slide layer



Material:

LB-010 is a triple layer bearing with copper plated steel backing, thin bronze layer in the middle and the sliding layer of PTFE. These bearings are suitable for the bearing conditions with oscillating movements where the additional lubrication is not possible. The friction of the bearing material is very low. These bearings are suitable to many normal bearing conditions where the additional lubrication is difficult to arrange.

Technical data:

Load:

Static	250 N/mm ²
Dynamic	140 N/mm ²
Oscillating	60 N/mm ²

Maximum speed:

Lubricated	>2,5 m/s
No lubrication	2,5 m/s

Friction:

0,03 - 0,20 μ

Temperature range:

-200/ +280 °C

Tolerances:

Housing H6/H7

Recommended shaft tolerance f7 or h8

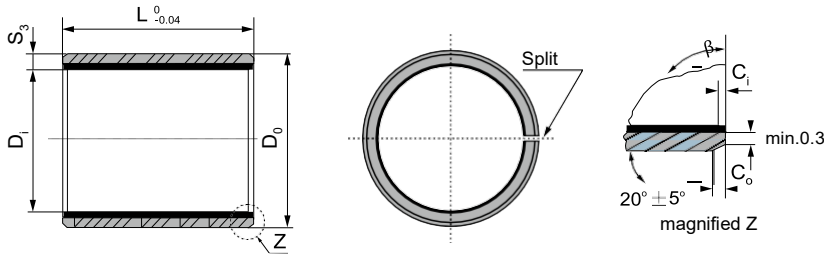
Lubrication:

LB-010 bearings are mainly to be used without additional lubrication. Lubricants with additives of molybdenum disulphide or graphite should be avoided.

Delivery possibilities:

- Cylindrical bearings, flanged bearings, thrust washers, plates, rails, drawing details, sliding layer outside
- Alternative materials: Steel backing, bronze backing, stainless steel backing

LB-010-Size



ID and OD chamfers

S ₃	C _o	C _i	β
0.75	0.5 ± 0.3	0.25 ± 0.2	30° ± 5°
1.00	0.6 ± 0.3	0.30 ± 0.2	30° ± 5°
1.50	0.7 ± 0.3	0.50 ± 0.3	30° ± 5°

S ₃	C _o	C _i	β
2.00	1.2 ± 0.4	0.50 ± 0.3	30° ± 5°
2.50	1.8 ± 0.6	0.60 ± 0.3	45° ± 5°

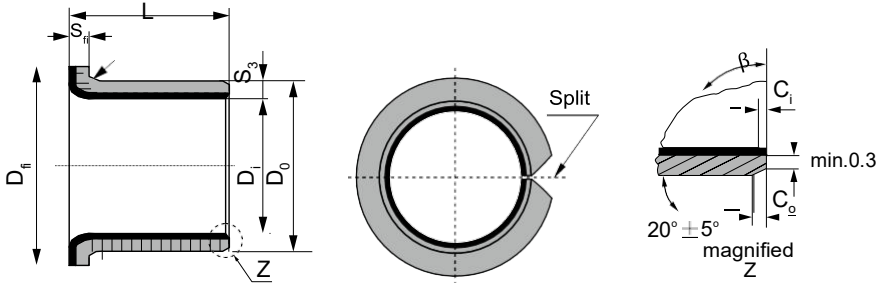
Unit: mm

(f7) Shaft D _s	(H7) Housing D _H	(OD) Tolerance D _o	(ID) After fixed D _{i,a}	Clearance D _o	Wall thick- ness S ₃	L 0/-0.30 <28mm L 0/-0.40															
						6	8	10	12	15	20	25	30	40	50						
6	-0.010 -0.022	8	+0.015	8	+0.055 +0.025	6.055 5.990	0.077 0.000	1.005 0.980	0606	0608	0610										
8	-0.013 -0.028	10	+0.015	10	+0.055 +0.025	8.055 7.990	0.083 0.003		0806	0808	0810	0812	0815								
10	-0.013 -0.028	12	+0.018	12	+0.065 +0.030	10.058 9.990	0.086 0.003		1006	1008	1010	1012	1015	1020							
12	-0.016 -0.034	14	+0.018	14	+0.065 +0.030	12.058 11.990	0.092 0.006		1206	1208	1210	1212	1215	1220	1225						
13	-0.016 -0.034	15	+0.018	15	+0.065 +0.030	13.058 12.990					1310	1312	1315	1320	1325						
14	-0.016 -0.034	16	+0.018	16	+0.065 +0.030	14.058 13.990					1410	1412	1415	1420	1425						
15	-0.016 -0.034	17	+0.018	17	+0.065 +0.030	15.058 14.990					1510	1512	1515	1520	1525						
16	-0.016 -0.034	18	+0.018	18	+0.065 +0.030	16.058 15.990	0.095 0.006				1610	1612	1615	1620	1625						
17	-0.016 -0.034	19	+0.021	19	+0.075 +0.035	17.061 16.990					1710	1712	1715	1720	1725						
18	-0.016 -0.034	20	+0.021	20	+0.075 +0.035	18.061 17.990					1810	1812	1815	1820	1825						
20	-0.020 -0.041	23	+0.021	23	+0.075 +0.035	20.071 19.990		0.112 0.010			2010	2012	2015	2020	2025	2030					
22	-0.020 -0.041	25	+0.021	25	+0.075 +0.035	22.071 21.990				2210	2212	2215	2220	2225	2230						
24	-0.020 -0.041	27	+0.021	27	+0.075 +0.035	24.071 23.990				2410	2412	2415	2420	2425	2430						
25	-0.020 -0.041	28	+0.021	28	+0.075 +0.035	25.071 24.990				2510	2512	2515	2520	2525	2530	2540	2550				
28	-0.020 -0.041	32	+0.025	32	+0.085 +0.045	28.085 27.990	0.126 0.010				2812	2815	2820	2825	2830	2840	2850				
30	-0.020 -0.041	34	+0.025	34	+0.085 +0.045	30.085 29.990					3012	3015	3020	3025	3030	3040	3050				
32	-0.025 -0.050	36	+0.025	36	+0.085 +0.045	32.085 31.990					3212	3215	3220	3225	3230	3240	3250				
35	-0.025 -0.050	39	+0.025	39	+0.085 +0.045	35.085 34.990		0.135 0.015				3512	3515	3520	3525	3530	3540	3550			
38	-0.025 -0.050	42	+0.025	42	+0.085 +0.045	38.085 37.990					3812	3815	3820	3825	3830	3840	3850				
40	-0.025 -0.050	44	+0.025	44	+0.085 +0.045	40.085 39.990					4012	4015	4020	4025	4030	4040	4050				

LB-010-Size

(f7) Shaft D _S	(H7) Housing D _H	(OD) Tolerance D _O	(ID) After fixed D _{i,a}	Clearance D _D	Wall thick- ness S ₃	L 0 / -0.40												
						20	25	30	40	50	60	70	80	100	115			
45 -0.050 -0.025	50 +0.025	50 +0.085 +0.045	45.105 44.990	0.155 0.015	2.505 2.460	4520	4525	4530	4540	4550								
50 -0.050 -0.025	55 +0.030	55 +0.100 +0.055	50.110 49.990	0.160 0.015		5020	5025	5030	5040	5050	5060							
55 -0.060 -0.030	60 +0.030	60 +0.100 +0.055	55.110 54.990	0.170 0.020				5530	5540	5550	5560							
60 -0.060 -0.030	65 +0.030	65 +0.100 +0.055	60.110 59.990					6030	6040	6050	6060	6070						
65 -0.060 -0.030	70 +0.030	70 +0.100 +0.055	65.110 64.990					6530	6540	6550	6560	6570						
70 -0.060 -0.030	75 +0.030	75 +0.100 +0.055	70.110 69.990					7030	7040	7050	7060	7070	7080					
75 -0.060 -0.030	80 +0.030	80 +0.100 +0.055	75.110 74.990					7530	7540	7550	7560	7570	7580					
80 -0.045	85 +0.035	85 +0.120 +0.070	80.155 80.020	0.201 0.020	2.490 2.440				8040	8050	8060	8070	8080	80100				
85 -0.054	90 +0.035	90 +0.120 +0.070	85.155 85.020	0.209 0.020					8540	8550	8560	8570	8580	85100				
90 -0.054	95 +0.035	95 +0.120 +0.070	90.155 90.020						9040	9050	9060	9070	9080	90100				
95 -0.054	100 +0.035	100 +0.120 +0.070	95.155 95.020							9550	9560	9570	9580	95100				
100 -0.054	105 +0.035	105 +0.120 +0.070	100.155 100.020							10050	10060	10070	10080	100100	100115			
105 -0.054	110 +0.035	110 +0.120 +0.070	105.155 105.020								10560	10570	10580	105100	105115			
110 -0.054	115 +0.035	115 +0.120 +0.070	110.115 110.020								11060	11070	11080	110100	110115			
120 -0.054	125 +0.040	125 +0.170 +0.100	120.210 120.070	0.264 0.070	2.465 2.415						12060	12070	12080	120100	120115			
125 -0.063	130 +0.040	130 +0.170 +0.100	125.210 125.070	0.273 0.070							12560	12570	12580	125100	125115			
130 -0.063	135 +0.040	135 +0.170 +0.100	130.210 130.070								13060	13070	13080	130100	130115			
140 -0.063	145 +0.040	145 +0.170 +0.100	140.210 140.070								14060	14070	14080	140100	140115			
150 -0.063	155 +0.040	155 +0.170 +0.100	150.210 150.070								15060	15070	15080	150100	150115			
160 -0.063	165 +0.040	165 +0.170 +0.100	160.210 160.070								16060	16070	16080	160100	160115			
180 -0.063	185 +0.046	185 +0.210 +0.130	180.216 180.070			0.279 0.070	2.465 2.415						18060	18070	18080	180100		
190 -0.072	195 +0.046	195 +0.210 +0.130	190.216 190.070	0.288 0.070							19060	19070	19080	190100				
200 -0.072	205 +0.046	205 +0.210 +0.130	200.016 200.070								20060	20070	20080	200100				
220 -0.072	225 +0.046	225 +0.210 +0.130	220.216 220.070								22060	22070	22080	220100				
250 -0.072	255 +0.052	255 +0.260 +0.170	250.222 250.070	0.294 0.070	2.465 2.415								25080	250100				
260 -0.081	265 +0.052	265 +0.260 +0.170	260.222 260.070	0.303 0.070										26080	260100			
280 -0.081	285 +0.052	285 +0.260 +0.170	280.222 280.070												28080	280100		
300 -0.081	305 +0.052	305 +0.260 +0.170	300.222 300.070												30080	300100		

LB-010WF-Size

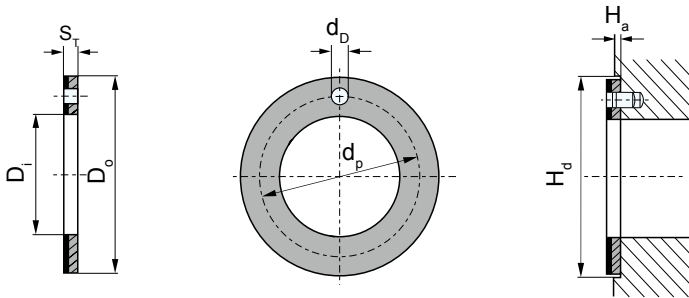


S ₃	1.0	1.5	2.0	2.5
r	1 ^{-0.5}	1 ± 0.5	1.5 ± 0.5	2 ± 0.5

Unit: mm

(f7) Shaft D _S	(H7) Housing D _H	(OD) Tolerance D _o	(ID) After fixed D _{i,a}	Clearance C _o	Designation	Wall thickness S ₃	Dimension				
							D _i	D _o	D _{fi} ± 0.5	L ± 0.25	S _{fi} - 0.2
6 -0.013 -0.028	8 +0.015	8 +0.055 +0.025	6.055 5.990	0.077 0.000	LB-010WF06040	1.005 0.980	6	8	12	4	1
					LB-010WF06070					7	
8 -0.013 -0.028	10 +0.015	10 +0.055 +0.025	8.055 7.990	0.083 0.003	LB-010WF08055	1.005 0.980	8	10	15	5.5	1
					LB-010WF08075					7.5	
10 -0.016 -0.034	12 +0.018	12 +0.055 +0.025	10.058 9.990	0.086 0.003	LB-010WF10070	1.005 0.980	10	12	18	7	1
					LB-010WF10090					9	
					LB-010WF10120					12	
12 -0.016 -0.034	14 +0.018	14 +0.065 +0.030	12.058 11.990	0.092 0.006	LB-010WF12070	1.005 0.980	12	14	20	7	1
					LB-010WF12090					9	
					LB-010WF12120					12	
14 -0.016 -0.034	16 +0.018	16 +0.065 +0.030	14.058 13.990	0.092 0.006	LB-010WF14120	1.005 0.980	14	16	22	12	1
					LB-010WF14170					17	
					LB-010WF15090					9	
15 -0.016 -0.034	17 +0.018	17 +0.065 +0.030	15.058 14.990	0.092 0.006	LB-010WF15120	1.005 0.980	15	17	23	12	1
					LB-010WF15170					17	
					LB-010WF16120					12	
16 -0.016 -0.034	18 +0.018	18 +0.065 +0.030	16.058 15.990	0.092 0.006	LB-010WF16170	1.005 0.980	16	18	24	17	1
					LB-010WF18120					12	
					LB-010WF18170					17	
18 -0.016 -0.034	20 +0.021	20 +0.075 +0.035	18.061 17.990	0.095 0.006	LB-010WF18200	1.005 0.980	18	20	26	20	1
					LB-010WF20115					11.5	
					LB-010WF20165					16.5	
20 -0.020 -0.041	23 +0.021	23 +0.075 +0.035	20.071 19.990	0.112 0.010	LB-010WF20215	1.505 1.475	20	23	30	21.5	1.5
					LB-010WF22150					15	
					LB-010WF22200					20	
22 -0.020 -0.041	25 +0.021	25 +0.075 +0.035	22.071 21.990	0.112 0.010	LB-010WF25115	1.505 1.475	22	25	32	11.5	1.5
					LB-010WF25165					16.5	
					LB-010WF25215					21.5	
25 -0.020 -0.041	28 +0.021	28 +0.075 +0.035	25.071 24.990	0.112 0.010	LB-010WF25215	1.505 1.475	25	28	35	16.5	1.5
					LB-010WF30160					16	
					LB-010WF30260					26	
30 -0.025 -0.050	34 +0.025	34 +0.075 +0.035	30.085 29.990	0.126 0.010	LB-010WF35160	2.005 1.970	30	34	42	26	2
					LB-010WF35260					26	
					LB-010WF40260					26	
35 -0.025 -0.050	39 +0.025	39 +0.085 +0.045	35.085 34.990	0.135 0.015	LB-010WF40400	2.005 1.970	35	39	47	40	2
					LB-010WF40400					40	
40 -0.025 -0.050	44 +0.025	44 +0.085 +0.045	40.085 39.990	0.135 0.015	LB-010WF40400	2.005 1.970	40	44	53	40	2
					LB-010WF40400					40	

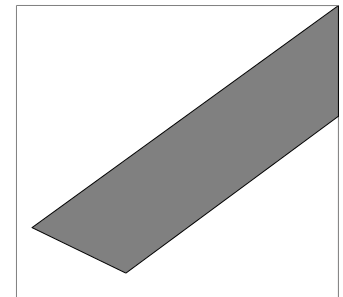
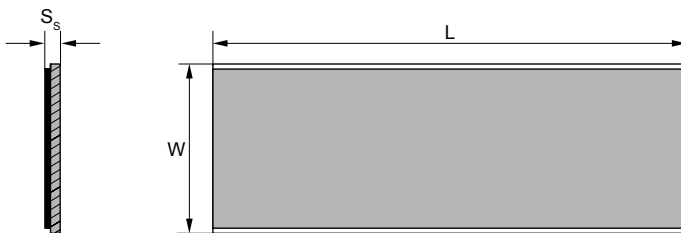
LB-010WC Washer



Unit: mm

Shaft D_s	Standard No.	Washer size				Assemble size		$H_d + 0.12$
		$D_i + 0.25$	$D_o - 0.25$	$S_T - 0.05$	$d_p \pm 0.125$	$d_D^{+0.4/+0.1}$	$H_a \pm 0.2$	
8	W10	10	20	1.5	15	1.5	1	20
10	W12	12	24		18			24
12	W14	14	26		20	26		
14	W16	16	30		23	30		
16	W18	18	32		25	32		
18	W20	20	36		28	36		
20	W22	22	38		30	38		
22	W24	24	42		33	42		
24	W26	26	44		35	44		
26	W28	28	48		38	48		
30	W32	32	54		43	54		
36	W38	38	62		50	62		
40	W42	42	66		54	66		
46	W48	48	74		2	61		1.5
50	W52	52	78	65		78		
60	W62	62	90	76		90		

LB-010SP Strip



Unit: mm

Standard No.	$L \pm 1$	$W \pm 1$	Wall thickness $S_s - 0.05$
SP	500	150	1.0
SP	500	150	1.5
SP	500	150	2.0
SP	500	150	2.5